RELEASE

FOR: ESC ELECTRONICS CORP.

PALISADES PARK, NEW JERSEY

TWO NEW MINIATURE IFF TRANSPONDER DELAY LINES MOUNT ON PRINTED CIRCUIT BOARD

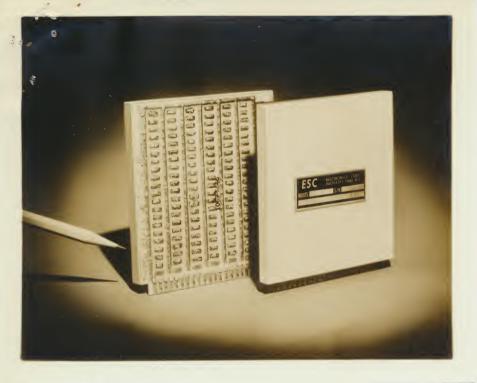
The newest IFF transponder delay lines developed by ESC are distinguished by their relatively miniature size and construction. Models 53-89 and 53-92 exhibiting delays of 20.3 microseconds and 24.65 microseconds respectively each occupy only 4" x 4" x 3/8" of printed circuit board space and can be supplied as separate PC mounting components or together with associated circuitry.

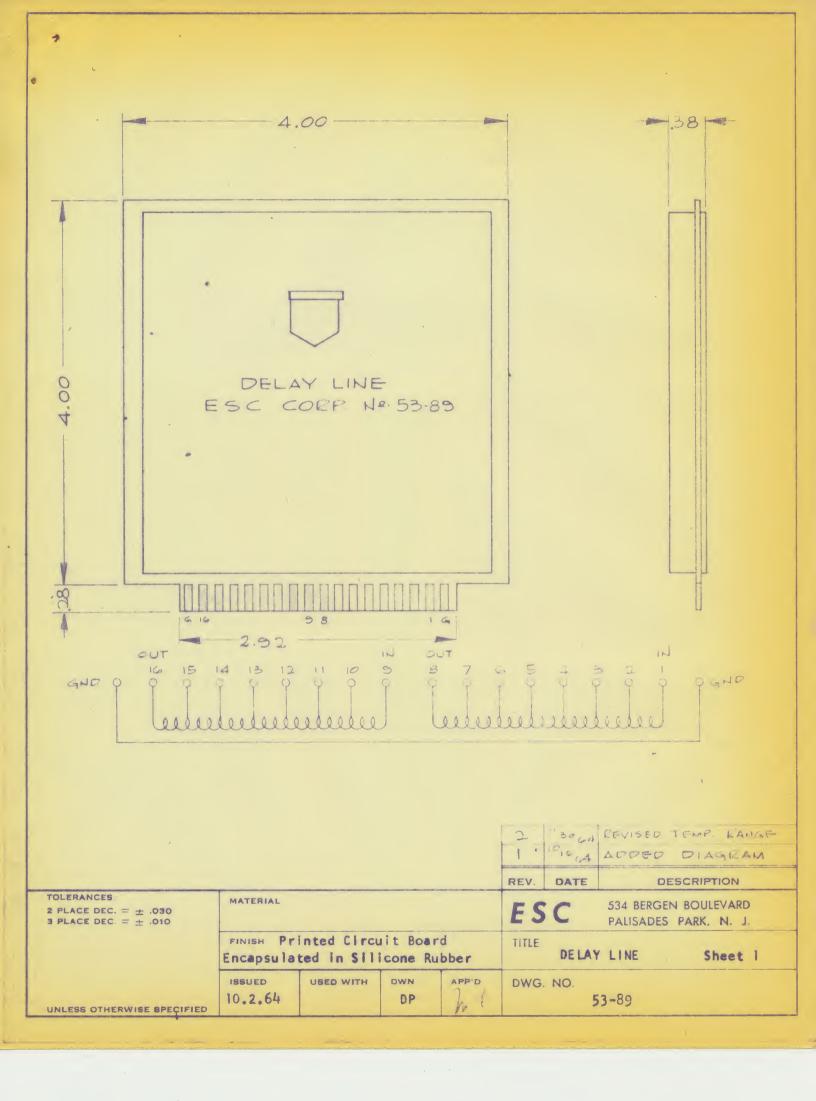
Impedance is 400 ohms for the Model 53-89 and 470 ohms for the Model 53-92. The delay to rise time ratio is better than 50:1, attenuation is less than 0.12 db/microsecond and temperature coefficient less than 50 ppm/°C. over a temperature range of -55°C to +85°C.

Taps are provided at 1.45 microsecond intervals to a ±.05 microsecond tolerance, but can be relocated as required. Units are available for short term test purposes on a consignment and "first come first served" basis.

For more information contact ESC Electronics Corp., 534 Bergen Boulevard, Palisades Park, New Jersey, or telephone (201) 947-0400.

AR 12/11/64 ESC





CHARACTERISTICS

Delay Time

20.3 usec. ± .1 usec.

Taps

every 1.45 usec. ± .05 usec. of nominal time delay

Terminating Resistance $400 \Omega \pm 1\%$

Input Resistance

375 Ω ± 1%

Characteristic Impedance $400 \Omega + 5\%$

Output Rise Time

.40 usec. max.

with Input Rise Time

.02 usec. max.

Distortion

10 % max.

with Input Rise Time

.02 usec.

Attenuation

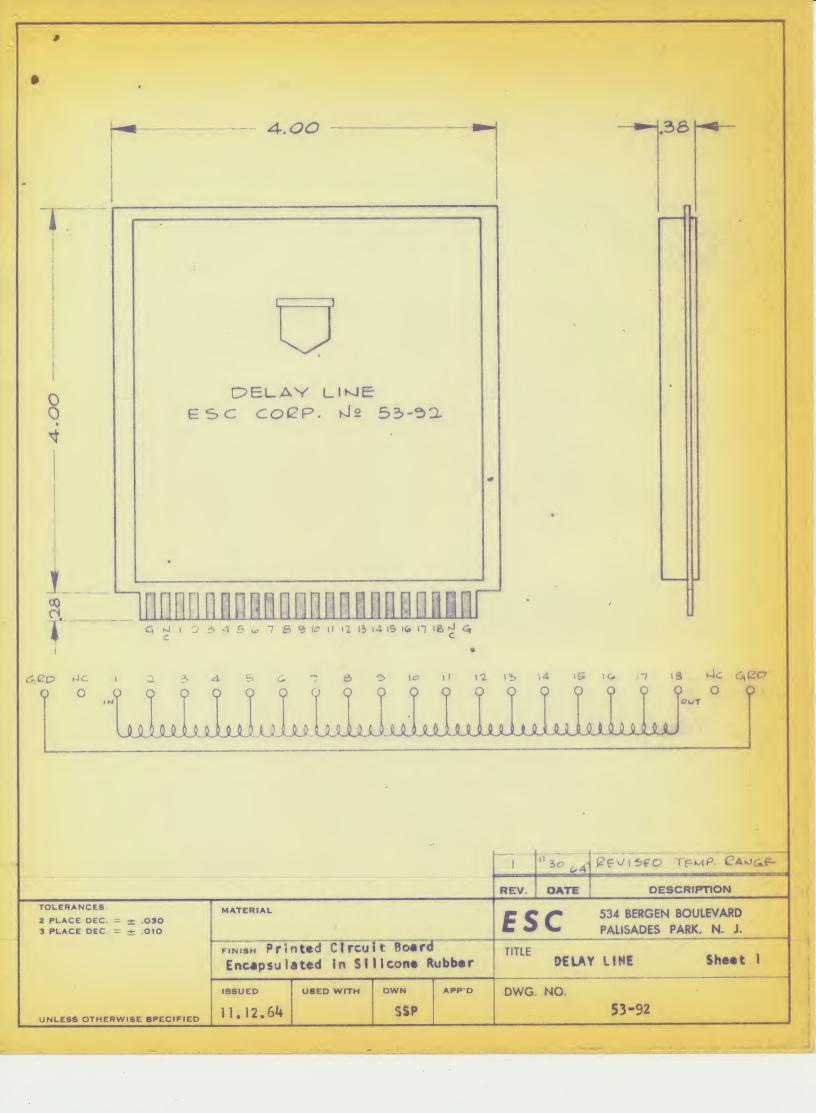
2.4 db at 25°C

Temperature Coefficient 50 ppm/°C max.

Temperature Range

-55°C to +105°C

-							3
					REV	DATE	E . DESCRIPTION
TOLERANCES 2 PLACE DEC. = ± .030 3 PLACE DEC = ± .010	Encapsulat	rinted Circ			ES	C	534 BERGEN BOULEVARD PALISADES PARK, N. J.
	FINISH				TITLE		Sheet 2 of 2
	ISSUED	USED WITH	OWN	APP'D	DWG.	NO.	
UNLESS OTHERWISE SPECIFIED	10.6.64		DN	15			53-89



CHARACTERISTICS

Delay Time

24.65 usec. ±.1 usec.

Taps

every 1.45 usec. ±.05 usec. of nominal time

delay

Terminating Resistance

470Ω ± 1%

Input Resistance

445 \(\Omega \pm 1\)%

Characteristic Impedance

470 1 + 5%

Output Rise Time

0.47 usec. max.

with input Rise Time

.02 usec. max.

Distortion

10% max.

with Input Rise Time

.02 usec.

Attenuation

2.5 db at 25°C

Temperature Coefficient

50 ppm/°C max.

Temperature Range

- 55°C to + 105°C

							+ -		
					REV.	DATE	DESCRIPTION		
TOLERANCES: 2 PLACE DEC. = ± .030 3 PLACE DEC. = ± .010	MATERIAL Printed Circuit Board Encapsulated in Silicone Rubber				ES	C.		N BOULEVARD PARK, N. J.	
	FINISH				TITLE			Sheet 2 of 2	
UNLESS OTHERWISE SPECIFIED	11.12.64	USED WITH	SSP	APP'D	DWG.	NO.	53-92		

YOU ASKED

3

In response to your recent request, we are happy to send our latest technical bulletin.

If you do not already have our complete ESC Delay Lines Catalog, please fill in the attached postage-free card. Your catalog will arrive with everything published to date. You will also receive new material, as it is released.





BUSINESS REPLY CARD

First Class Permit No. 119, Palisades Park, N. J.

ESC CORPORATION

534 Bergen Boulevard Palisades Park, N. J. Gentlemen:
Please send me the latest edition of your ESC Delay
Lines Catalog.

COMPANY NAME

COMPANY ADDRESS



ELECTRONICS CORPORATION

534 BERGEN BOULEVARD . PALISADES PARK, N. J. . WINDSOR 7-0400

DELAY LINE QUESTIONNAIRE SHEET

1. Required	delay (one way)usec.	
		. (measured at 50% amplitude or specify)
a. Temper	ature range and tolerance:	
		% orsec. at°C
	, and the second	usec. from°C to°C
b. Taps		
2. Character	istic impedance	ohms
3. Output ri	se timeusec. max. {[step function input
	oandwidthmega	
	permissible pulse attenuation	
5. Maximum	n persmissible distortion	
-	se characteristics a. Pulse	
_	tion rate c. Ris	
	pulsevolts; DC level pacity: inputmmfc	volts; maximum test volts
1.1		
FOUANIA		LONG
ECHANI	CAL SPECIFICAT	IUNS
10. Metal Cas	se Molded O	ther
11. Maximum	outside dimensions	

Use reverse side of sheet for remarks, sketches and schematics.



SALES REPRESENTATIVES

	TERRITOR	IES			<u>TERRITOR</u>	IES
(15) (11) (12) (17)	Alabama Arizona Arkansas California	(7) (2) (2) (8)	Illinois (balance of state) Indiana Iowa Kansas	(4) (1)	New Hampshire New Jersey (except Camden and Moorestown) New Jersey (Camden and Moorestown)	(16) (19) (4)
(13)	Southern: (up to and including Kern County) California, Northern Colorado	(14) (12) (4)	Kentucky Louisiana Maine	(11) (11) (1) (9)	New Mexico New York City and Long Island New York State	(16) (16) (14) (12)
(4) (19) (20)	Connecticut Delaware District of Columbia	(20) (4) (3) (5)	Maryland Massachusetts Michigan Minnesota	(10) (18)	Endicott, Poughkeepsie, Ithaca, Kingston, Owego, Syracuse, Utica. New York State (balance of state) North Carolina	(16) (4) (20) (16)
(15) (15) (16) (2)	Florida Georgia Idaho Illinois (except Monroe, Calhoun,	(15) (7) (16) (17)	Mississippi Missouri Montana Nevada	(16) (14) (12)	North Dakota Ohio Oklahoma	(16) (2) (16) (6)
	Jersey, Madison and St.Clair counties) REPRESENTA	TIVES			REPRESENTA	ATIVES
(1)	Andrews and Andrews, Inc. 140 W. Main Street Huntington, New York (516) 692–8686	(6)	Electronic Marketing Co. of Canada, Ltd. 3600 Barclay Avenue, Suite 410 Montreal 26, Quebec, Canada (514) 739–8052	(11)	Fryco 403 N. Old Scottsdale Road Scottsdale, Arizona (602) 945–3281 or 945–8071	(16)
(2)	Carlson Electronic Sales Co. 7448 N. Harlem Avenue Chicago 48, Illinois (312) 774–0277	(7)	Florence and Meyer 406 West 34th Street Kansas City, Missouri (816) 561–7282	(12)	The Jacobson Company Post Office Box 9702 Dallas 14, Texas (214) 351-3362	(17)
(3)	Carter, McCormic and Peirce Co. 16239 Wyoming Street Detroit, Michigan (313) 862–0017	(8)	Florence and Meyer 400 North Emporia Street Wichita, Kansas (316) 464–2893	(13)	McKnight Company 1436 El Camino Real Menlo Park, California (415) 326–3762	(18)
			, , , , , , , , , , , , , , , , , , , ,	(14)	Monatron	(19)

(10) Franklin Sales Corporation 21 Winhurst Drive Rochester 18, New York (716) 442-9765

(9) Franklin Sales Corporation

Two Standish Terrace

Syracuse, New York

(315) 446-1120

(4) Cirolia and LeBlanc

976 Main Street

(617) 893-2742

(5) E C Electronic Sales

(612) 888-0102

Waltham, Massachusetts

Minneapolis, Minnesota

10108 Abbott Avenue, South

- Oregon
- Pennsylvania Rhode Island
 - South Carolina
 - South Dakota
 - Tennessee
 - Texas Utah

 - Vermont
 - Virginia
 - Washington
 - West Virginia
 - Wisconsin Wyoming
 - CANADA

- 21055 Lorain Road Cleveland, Ohio (216) 331-3554
- (15) NBS, Inc. 3931 S.W. Fifth Terrace Miami, Florida (305) 444-1118 3524 Devonswood Drive Orlando, Florida (305) 423-4856

- CONTACT FACTORY (201) 947-0400 N.Y.C. and L.I. No. (212) 244-4748
- Shephard-Winters Company 3193 Cahuenga Boulevard Hollywood, California (213) 466-2171
- Waters Associates Post Office Box 349 Graham, North Carolina (919) 226-7583
- Harry J. White Company 121 Covered Bridge Road Haddonfield, New Jersey (609) 428-2304
- (20) Harry J. White Company 204 W. Pennsylvania Avenue Towson 4, Maryland (301) 828-6373